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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/470,386	12/22/99	GENSKE	R 24180-667000

EXAMINER

JACKSON, M

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 10/25/00

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IM62/1025

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/470,386

Applicant(s)

GENSKE ET AL.

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

1. The use of various trademarks has been noted in this application, for example Page 6, line 5. They should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over DiPoto (USPN 5,558,930.) DiPoto teaches a multi-layer heat sealable film which is produced by coextrusion and compression rolled orientation and useful as a packaging material (Abstract; Col. 11, lines 28-42.) The film comprises at least one barrier layer of a moisture and/or gas resistant thermoplastic material and at least one sealant layer of a heat sealable thermoplastic material (Abstract.) The barrier layer comprises a gas

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and/or moisture barrier material, such as high density polyethylene (HDPE), medium density polyethylene (MDPE), low density polyethylene (LDPE), linear polyethylenes such as butene, hexene, octene copolymers, polypropylene, nylon, ethylene vinyl alcohol (EVOH), polyester, polyacrylonitrile, polyvinylidene chloride (PvDC) and blends thereof (Col. 4, lines 45-52.) The barrier layer is comprised of a material which has a higher melting point than the sealant layer (Col. 4, lines 52-54.) In various embodiments, it is preferred to have high density polyethylene, which inherently has a density of 0.93 to 0.97 g/cc, as a primary component of the barrier layer (Col. 4, lines 54-56.) The second layer is a heat sealant layer which can comprise a material having various heat seal layer properties such as seal initiation temperature, hot tack strength and coefficient of friction (Col. 4, lines 56-59.) Various useful adhesive or heat sealant layers comprise ethylene/acetate copolymers; ethylene/carboxylic acid; butene, hexene, or octene linear copolymers of polyethylene; ionomers and acid or anhydride modified ethylene vinyl acetates; and low density polyethylene (LDPE), ultra low density polyethylene (ULDPE), very low density polyethylene (VLDPE), linear polyethylenes, and metallocene catalyst based polyethylenes which are copolymerized with 10-20% octene, hexene, butene or mixtures thereof which inherently have a density within the range of 0.89 to 0.93 g/cc, and blends of these adhesive layer materials (Col. 4, line 59 – Col. 5, line 5.) Typically, it is noted that heat sealant layers have lower melting points than barrier layers such as high density polyethylene (Col. 5, lines 7-9.) It is also within the contemplated scope of the invention that various other materials can be included as an intermediate layer in the film (Col. 4, lines 18-21.) The various intermediate or middle layers can be provided to increase the desired properties of the film such as puncture resistance, tear resistance, opacity level and gas barrier properties (Col. 4, lines 22-

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24.) These various intermediate materials can include other types of barrier materials such as gas barrier materials, other sealant layers, metallic particles layers, and layers which include trim or excess from the film material (Col. 4, lines 24-28.) The intermediate layers may also include a color component such as titanium dioxide to render any desired level of opacity or color to the film or other organic filler (Col. 4, lines 28-30; Col. 10, lines 46-50.) DiPoto teach various examples comprising 2, 3, and 4 intermediate layers which comprise barrier material plus trim or the excess width trimmed off the edges of the film and incorporated back to save costs (Col. 9, lines 4-50.) DiPoto also teach that multilayer films may be produced by lamination and/or coextrusion technology and/or orientation (Col. 2, lines 3-11.) Therefore, it is within the scope of the invention to fabricate an oriented multilayer laminated packaging film with four or more layers comprising a heat sealant layer of LDPE which inherently has a density of 0.89 to 0.93 g/cc, two intermediate layers of HDPE which inherently has a density of 0.93 to 0.97 g/cc and may comprise trim or excess from the entire film, and a barrier or support layer comprising polyester, nylon, or polypropylene whereby the barrier layer is coated with a barrier resin which would constitute a third intermediate layer. Alternatively, in the absence of unexpected results, it would have been obvious to one skilled in the art to fabricate an oriented multilayer laminated packaging film with four or more layers comprising a heat sealant layer of LDPE which inherently has a density of 0.89 to 0.93 g/cc, two intermediate layers of HDPE which inherently has a density of 0.93 to 0.97 g/cc and may comprise trim or excess from the entire film, and a barrier or support layer comprising polyester, nylon, or polypropylene whereby the barrier layer is coated with a barrier resin which would constitute a third intermediate layer, optimizing the

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materials comprising the individual layers to obtain a film with the desired heat seal and tear properties as taught by DiPoto.

5. Claims 1, 9-15, 17, 21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Bader et al (USPN 5,725,962.) Bader et al teach an oriented multilayer film structure comprising a base layer of high density polyethylene (HDPE) which inherently has a density of 0.93 to 0.97 g/cc, and coextruded skin resin, laminated film or coating on at least one side, preferably on both sides, of the HDPE base layer, (Col. 2, lines 42-49.) The HDPE may be a blend of HDPE polymers all of which preferably have densities of 0.96 or greater (Col. 4, lines 34-36.) The upper skin layer may comprise a blend of plastomers including low density polyethylene LDPE, EPB terpolymer, linear low density polyethylene with a density of 0.88 to 0.93 (Col. 4, line 53 - Col. 5, line 6.) The lower skin layer comprises polyethylene and ethylene-propylene-butene terpolymer (Col. 5, lines 43-49.)

6. Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kudo et al (USPN 5,346,764.) Kudo et al teach a resin laminate suitable for packaging liquid matters such as various foods (Abstract.) The laminate comprises a heat-sealable layer A of ethylene polymer having a density ranging from 0.900 to 0.920 g/cc including linear low density polyethylene and ethylene/butene copolymer; a resin layer B which has a higher melting point than layer A and comprises a polyolefic resin including high density polyethylene which inherently has a density within the range of 0.93 to 0.97 g/cc, middle density polyethylene, low density polyethylene or mixtures thereof; and a base film comprising nylon, PET, or polypropylene, oriented or unoriented, which is laminated on the surface of the resin layer B opposite to the heat-sealable layer A and may

comprise one or more layers (Col. 3, lines 10-42; Col. 4, lines 9-11; Col. 5, lines 4-20.) The heat-sealable layer A and polyolefinic resin layer B may further comprise a variety of additives such as colorants, fillers, antioxidants, and plasticizers (Col. 4, lines 35-44.) Kudo et al further teach examples utilizing HDPE with a density of 0.954 g/cc or LLDPE with a density of 0.930 as layer B and LLDPE with a density of 0.905 as layer A to form a packaging bag to be filled with soy sauce (Table 1; Col. 7, lines 40-48.) Though Kudo et al only teach that the base film may be a single layer or multiple layers, it is the Examiner's position that the final product of a laminated film of the invention with two identical olefinic B layers would be the same as a laminated film with one layer B having the combined thickness of the two identical layers. Additionally, in terms of adding regrind of layers A and B to layer B, this final composition of layer B would still comprise the limiting materials as taught by Kudo et al with an outer layer A having a lower melting point than the layer B with or without the regrind. In the alternative, adding regrind from the laminate comprising layers A and B to a future B layer is a common method for fabricating multilayer films to reduce waste and would have been obvious one skilled in the art at the time of the invention given that the resulting layer B with regrind would still have a melting temperature above the melting temperature of layer A as taught by Kudo et al. Further, in the absence of unexpected results, the use of multiple identical B layers to form a single layer B would have been obvious to one skilled in the art at the time of the invention.

7. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al as applied above to Claims 1-23. The teachings of Kudo et al are discussed above and include a multilayer packaging film and a method of making the multilayer film by lamination. Kudo et al also teach that the base film may comprise a single layer or multiple layers but does not teach et

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al do not teach the use of two identical layers to form one layer B which may comprise HDPE (Col. 5, lines 17-21.) However, it is common to one skilled in the art to laminate multiple individual layers to form a multilayer film of the desired thickness. Further, it is a common method to one skilled in the art to utilize regrind or excess from previous laminates in a layer of the laminate that comprises the same materials as the entire laminate or which will not be adversely affected by the addition of the regrind and will provide the desired characteristics of that layer. Therefore, it would have been obvious to one skilled in the art at the time of the invention to utilize a single layer or multiple identical layers to obtain a layer B of the desired thickness and to include the regrind or excess of layers A and B which comprise the same materials as layer B with the resulting layer B still having a higher melting point than layer A for the liquid food packaging film as taught by Kudo et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5436 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



mrj
October 22, 2000



Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700